

# REPORT ON THE PRESENTATION OF AN HISTORIC ENGINEERING MARKER

for

## WOLLONGONG HARBOUR



Saturday 28<sup>th</sup> April 2001



## Introduction

The Harbour at Wollongong is one of the earliest examples of harbour and port construction in Australia. Construction was commenced in 1834 to cater for an increase in goods entering and leaving the new township of Wollongong. This harbour was expanded between 1861 and 1868 by the use of ~~large~~ labour to meet the needs of a further increase in shipping as coal was being loaded at the site for transport to Sydney.

Two prominent colonial engineers were involved in the phases of development. These were George Barnett and Edward Moriarty.

Barnett arrived in Australia in 1835 as Commanding Engineer and Colonial Engineer after having served in the army in various overseas locations. He insisted on better standards from government contractors, established a government brickworks, designed Victoria Barracks and supervised directly or indirectly Circular Quay, Customs House, Government House, gas supply, roads, bridges, railways, Fort Denison and Wollongong Harbour. Barnett departed for England in 1846 but later returned as Chief Commissioner of Crown Lands.

Edward Moriarty was Engineer-in-Chief, Harbours and Rivers Navigation Branch in the Department of Lands and Public Works from 1858 to 1888. Moriarty studied the design of steam vessels, which was relevant to his later career, and arrived in Australia in 1848. He subsequently opened an engineering practice that opened and developed coalmines in Wollongong. Later joining the public service his duties included dredging, breakwater construction and his greatest work was the Upper Nepean Scheme which augmented the Sydney water supply. Also he was responsible for Belmore Basin in Wollongong Harbour between 1861 and 1868, and the breakwater construction from 1867 to 1869. He was also responsible for the design and placement of the Old Wollongong lighthouse on the breakwater to the harbour.

Due to the importance of Wollongong harbour and the fact that much of the original works are still in place the Institution of Engineers Australia nominated the site under its historic engineering marker program. Wollongong Harbour is the 64<sup>th</sup> location to be granted this recognition. A brief history of the harbour and its importance is included in Appendix 1.

In association with the presentation of the marker, the combining of the event with the launch of a book by the Illawarra Historical Society ( IHS) on the lighthouses of the Illawarra enhanced the historical nature of the ceremony.

## Planning for the Event

As outlined in the introduction, the design and construction of Wollongong Harbour was proposed by the Sydney Division of the Institution of Engineers (Australia) to the included in the Institutions' Historic Engineering Plaquing Programme as a Historic Engineering Marker (HEM). Details on this Programme are included in Appendix 1 which also includes a list of previous recipients. This proposal by the Sydney Division was approved by the national body of the Institution around September 2000.

Planning for the actual ceremony began with discussions between members of the IEAus Heritage Committee and Mr Brian Dooley (Regional Manager of DLWC) in September 2000.

The Department of Land and Water Conservation, as the Department responsible for the maintenance of the harbour, carried out a major restoration of the Wollongong Breakwater Lighthouse between 1999 and 2001. It was known to the Department that the IHS was rewriting a book on the Illawarra Lighthouses (called 'White Towers') to incorporate changes in all the lighthouses since the book was first written in 1972 and to incorporate a section on the restoration of the old lighthouse. The book was written in 1972 to mark the centenary of the construction of the old lighthouse.

As this was to be the major book launch by the IHS this year and was in keeping with the objectives of the IEAus, to raise awareness of engineering achievements, it was decided to incorporate both significant events on the same day.

A meeting was held between the three parties (DLWC, IEAus and IHS) on the 21 March 2001 at the Old Wollongong Court House. At this meeting the site for the ceremony was found to be acceptable as it was adjacent to the site, covered, large enough and had a significant historical tie with the harbour. The harbour was also inspected for a suitable place to position the HEM after the ceremony. A site on a concrete encasement on the lower level adjacent to the road near the Fishermen's Co-operative building was decided to be suitable.

The meeting determined the various roles and responsibilities for the day and followed advice given by the IEAus on running similar events (Appendix 1 contains the format used). It was determined at this meeting:

- i. The potential speakers, their order on the agenda and the topic of their speech,
- ii. The ceremony date (28 April 01) which was to coincide with Heritage Week,
- iii. The venue of the Old Court House for the ceremony and the location for the plaque were suitable,
- iv. The set-out for the venue was discussed and who was to supply what for the day determined,
  - 60 people expected
  - DLWC to provide a lectern and unveiling stand
  - IEAus to provide banners and posters outlining the history of the harbour

- DLWC was to prepare some visual displays of the recent lighthouse restoration works,
- v. The invitation list of all parties was compared and discussed and DLWC was to issue invitations, media releases and prepare the Ceremony Brochure,
- vi. Afternoon tea was discussed

Invitations were sent out to people on the list. Later it was found that several people (particularly on the IHS side were inadvertently left out). This was rectified as the problem became apparent and the RSVP date changed for those people (A copy of the Invitation is included in Appendix 2).

The dignitaries were contacted as to their availability to attend. It was unfortunate that a major fund raising event was being held at the racecourse on the same day that precluded the local member, Mr Colin Markham MP from attending. Another local member, Mr David Campbell MP was available to attend and accepted the invitation heartily. Also the Lord Mayor of Wollongong, Councillor George Harrison, was able to attend for part of the occasion.

Media releases and speeches were drafted and approved by DLWC. The approved versions were then released prior to the event.

### **The Presentation Day**

Saturday 28 April 2001 was a fine dry day with a south easterly wind and some cloud. The northerly aspect of the building afforded protection from the wind and ensured a pleasant afternoon and the opportunity for exploring the harbour and its surrounds.

A list was prepared of the Invitees and those that either accepted or apologised (Appendix 2 and 3). This was used as the basis of providing seating and afternoon tea. Staff from DLWC prepared the venue with seating, lectern and signage. DLWC also supplied and prepared the afternoon tea.

It was found that some people arrived without formally accepting. This was not a concern as there were a number that indicated they would attend who were not in attendance. Overall approximately 60 people attended the afternoon and the seating and refreshments were sufficient.

The ceremony commenced at 1:00pm with a welcome to the Old Court House by the President of the local National Trust (who have control of the building) who outlined the history of the building and the role of the National Trust in Wollongong.

At about 1:15pm Mr Brian Dooley of DLWC welcomed all the guests for the dual purposes of the afternoon.

Sometime before 1:30pm (ahead of time) Mr David Campbell MP talked about the "White Towers" book and its significance to the local heritage before officially launching it. A copy of the speech notes are included in Appendix 5 that outline the

talk. Mr Campbell's speech was followed by the Author of the new edition of the book, Mrs Carol Herben, who talked about the preparation of the book and thanked those who assisted in it.

Afternoon tea was held between 2:00pm and 2:30pm which gave an opportunity to stretch legs, have something to eat and to talk to other attendees in a relaxed atmosphere.

The IEAus section of the afternoon commenced at 2:30pm with Mr Brian Dooley giving a talk on the history of the Wollongong Harbour and aspects of its development. Much of this material was based on the 'Port of Wollongong' book produced by the IHS. The harbour has gone through a variety of uses from general agricultural material and passengers to a booming coal trade. It is currently used primarily as a fishing harbour but has kept the evidence of the heritage of all the past uses. The site is rich in heritage and is one of the earliest examples in Australia of colonial port construction.

At about 2:45pm the President of the IHS, Mr Phil Presser, talked on the link between the social history of the harbour and the growing town of Wollongong. As the harbour grew in stature, the town of Wollongong increased in State importance leading to a boom in employment and other opportunities. The scope of this topic is understandably large and the talk could have extended well past the allocated period.

At 3:00pm the Lord Mayor, Councillor George Harrison, gave a brief talk on the modern relationship of the harbour to the City. He outlined how the harbour is still the centre of social activities in Wollongong with the site being the frequent location for triathalons, and large events such as Australia Day and the Sea Food and Sail weekends. It is also still a large fishing harbour with one of the great aspects is that people can still be close to the activity of commercial fishing. The recent restoration of the old lighthouse has raised the attractiveness of the harbour in the eyes of residents and visitors.

Mr Andrew Leventhal, President of the IEAus (Sydney Division) gave a talk on the significance of the HEM and other places that have been recipients of similar awards. He then explored the engineers that had a significant impact on the harbour including George Barney and Edward Moriarity. These engineers designed and supervised various major aspects of the harbours development including construction of Belmore Basin (the present fishing harbour) and the design of the old lighthouse.

The plaque was then unveiled to the audience by the Lord Mayor and Mr Leventhal.

A copy of the Agenda and Ceremony Brochure were distributed to each seat prior to the commencement and copies of these are included in Appendix 4.

During the afternoon photography was undertaken by DLWC and Mr Don Fraser of the IEAus organising committee. Copies of these photographs are included in Appendix 8.

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## Media Coverage

Prior to the event, a Media Release was prepared by DLWC and circulated to those to be quoted for comment. The accepted version was then distributed on Friday 27<sup>th</sup> April 2001 to the local television stations (WIN TV and Prime), the local radio stations (Wave FM and ABC Radio) and the local newspapers (the Illawarra Mercury, the free weekly paper the 'Wollongong Advertiser' and the 'Lake Times'). This release was then followed up with a telephone call to ascertain that the item was received.

A copy of the Media Release is enclosed at Appendix 6.

Prior to the afternoon's official commencement the Illawarra Mercury had arranged for a staff photographer to meet with Mr David Campbell MP, Mr Andrew Leventhal (President of the IEAAS Sydney Division), Mr Phil Presser (President of the Illawarra Historical Society), Mrs Carol Herben (Author of the book 'White Towers') and Mr Brian Dooley (the Regional Manager of DLWC). The results of this meeting and some of the contents of the Media Release appeared in the local press the week after the event (Appendix 7 contains the outcomes).

Soon after the commencement of the afternoon's activities a cameraman from WIN TV arrived and took footage of the audience and the speakers. It was reported that WIN TV showed some of the activities in the afternoon of Saturday. It is unknown if other footage of the event was shown at other times.

On the Monday after the presentation (30 April) the 'Illawarra Mercury' featured a photograph of Mr Leventhal and Mrs Herben beside the old breakwater lighthouse with a short article of Saturday's ceremony. This article was also included in the Internet version of the paper. Appendix 7 contains copies of these articles.

The 'Wollongong Advertiser' on the 1 May 2001 contained a photograph and a short piece on the event. A copy of this is also included in Appendix 7.

Available transcripts of speeches (Appendix 5) were made available to the Illawarra Historical Society for inclusion in the next society newsletter. The Society was particularly interested in the roles that the early colonial engineers played in the development of Wollongong Harbour and as a result in the town of Wollongong. A copy of this will be forwarded when available.

**Mr David Campbell MP**

**Speech Notes for 28<sup>th</sup> April 2001**

***Launch of the Illawarra Historical Society's  
'White Towers' book on Illawarra Lighthouses.***

- ◆ A. P. Fleming wrote the original edition of 'White Towers' in 1972 to commemorate the centenary of the construction of the Wollongong Breakwater Lighthouse. Mr Fleming was passionate about the local history of the area and a leader of his time in bringing to the general community the importance of some of our notable landmarks. This booklet started as notes for a talk to the Illawarra Historical Society but was of so much interest to the community it was produced for general sale.
- ◆ This updated edition of that booklet has been researched by Mrs Carol Herben and its launching today is very timely considering the fact that the Old lighthouse has just undergone major restoration works. Mrs Herben has not only taken the time and trouble to update the original sections of the book but has added new sections of interest and talks of the changes that have occurred to each of the Illawarra region's lighthouses in the last 29 years. In particular the section on the recent works on the old lighthouse (which are shown in the posters around the room) show how heritage buildings can easily fall into disrepair unless an effort is made to maintain and restore them.

- ◆ It is important that places such as this building, the lighthouse and the harbour are maintained for the community and it is also important that books are written as a historical record for future generations. The initiative of the Illawarra Historical Society and their supporters in producing such information is one that enriches the community in which we live and I heartily recommend this new book to all those that are interested in local history, lighthouses or engineering.

## Councillor George Harrison, Lord Mayor

### Speech Notes for 28<sup>th</sup> April 2001

#### *Belmore Basin, Wollongong Harbour. The Modern relationship of the Harbour to the City*

- ◆ As has been mentioned by the speakers before me the harbour, and its lighthouse, began out of necessity. Improvements were done to increase the exports from Wollongong's fledgling industries and to provide a safe place to load and unload passengers as the only reliable access to the major market of Sydney at the time was by sea.
- ◆ Since construction commenced in 1837 the development of Wollongong has focused on the harbour. Many of the city's most important buildings were built in the near vicinity, this fine old courthouse, the telegraph office (now the Wollongong Museum) and of course hotels.
- ◆ The people of Wollongong in those early times were attracted to this area for work and social interaction. While the city has changed significantly, the harbour is still seen by the local community as an area for work (the fish that many of you have eaten on your visits here were probably caught by the local fishing fleet) with an active fishing community.
- ◆ The biggest change is how the city now loves the area. This harbour, and particularly the beautiful old lighthouse, is the city's best known precinct. Most visitors to Wollongong would make at least one trip to the harbour to walk around and look at the history that has been preserved, the fishing vessels or the beautiful backdrop of the escarpment and the city. On any weekend the harbour is the destination for thousands of visitors.
- ◆ Also the harbour
  - ◆ is regularly the setting for triathalons, some having nationwide exposure.

- ◆ is the site, on Australia Day, for a day of community activities that includes the city's citizenship ceremony. On the evening of Australia Day over 50,000 people attend the spectacular fireworks that light up the harbour.
- ◆ has also been the home for a number of years of a Sea Food and Sail weekend. On this weekend yacht races are organised and the vessels moor overnight in the harbour bringing more colour and activity to the area.
- ◆ The recent refurbishment of the old lighthouse proved a popular local project and has helped raise the awareness of the importance of heritage to our modern city. The new paint finish on the old lighthouse has given the whole harbour a brightness that reflects the feeling in the city.
- ◆ The city is extremely fortunate to have the harbour with its impressive history so close to its centre. The presentation of the Historic Engineering Marker to the harbour and to the community of Wollongong by the Institution of Engineers is greatly appreciated and this day will itself become part of the history of the harbour.
- ◆ Congratulations to the Illawarra Historical Society for the wonderful work you do in restoring and promoting the heritage of our city and of course our beautiful harbour. Congratulations also to the Institution of Engineers for selecting the harbour for special recognition as a significant engineering achievement. Congratulations also must go to Carol Herben for your great efforts in updating "White Towers".
- ◆ Thankyou ladies and gentlemen, it's been wonderful to share this experience with you all.

**Speech Notes of Mr Andrew Leventhal,  
President of the Institution of Engineers Australia  
(Sydney Division)**

**Distinguished guests**

**Members of Sydney Division of the Institution of Engineers  
Australia**

**Members of the Illawarra Historical Society**

**Members of the Engineering Heritage Committee**

**Ladies and Gentlemen**

Thank you for the opportunity to contribute to today's  
proceedings.

..and thank you Lord Mayor Harrison for the kind words of  
thanks for this plaque.

I represent the **Institution of Engineers, Australia** at this  
ceremony, in my capacity as President of Sydney Division. I do  
this with pride, as the **Australian Historic Engineering  
Plaquing Programme** provides a means of recognition of the  
contribution of the Engineering Profession to the well-being of  
the community.

I have been asked to explain to you some of the background to  
the **Australian Engineering Heritage Plaquing Programme**.  
Kindly bear with me for a few minutes before the plaque is  
unveiled.

The Institution of Engineers Australia (IEAust) is the peak body  
representing the professional engineering team. IEAust has over  
60,000 members Australia-wide. Of these, some 16,500 are  
affiliated with Sydney Division. In reality, "Sydney" is a bit of a  
misnomer, since the coverage of Sydney Division is all of NSW  
with the exception of the NE (which is covered by the  
Newcastle Division) and the area local to Canberra.

IEAust has a broad spread of interests:

- It promotes and advances the science and practice of engineering in all its forms.
- It encourages the development of Australia's technological capacity and its contribution to our economic growth.
- It provides advice on policy input on engineering and technology to Government.
- And IEAust provides services to our members - through professional standing, continued professional development and graduate development programmes, amongst many others.

One of the important parts of the public face of IEAust is the activities of our Engineering Heritage Committees. Our presence here today is evidence to that value.

**So, what is heritage??** Heritage is the evidence of our past that we leave to future generations.

- It doesn't have to have high monetary value, and it doesn't have to be beautiful – though I'm sure that helps !!!
- Most people think of heritage as being buildings, but it can be and is a lot more.
- Heritage does visually and tangibly tell the story, in that “we stand on the shoulders” of our forebears. In that way, it tells where we came from, and why our infrastructure is the way it is.
- And without it, I suggest, our society would be spiritually poorer.

More than other professionals, it is the engineer who has provided our national infrastructure. In this context, I refer to the comment by HRH Princess Anne at the Inaugural RedR address by Jose Ramos-Horta. Princess Anne noted that the most important public health advance, one that has saved more lives than all the medico's put together, is CLEAN WATER....courtesy of the Engineering Profession.

The work of the IEAust Heritage Committee therefore is about:

- making people aware of our rich engineering heritage
- making them aware of the contribution of engineers, and
- encouraging the conservation of important engineering works.

Examples of this includes:

- The **Oral History** programs, which record the experiences of eminent engineers.
- The **Walking Guide** to the engineering heritage of Sydney.

and.....

....this brings me to the **Historic Engineering Plaquing Program**. This programme is one of the important public awareness campaigns of our Heritage Committee:

- Its purpose is to bring public recognition to significant engineering works, and the engineers who create them.
- For works of outstanding national importance, there is the **National Engineering Landmark** award, of which 19 so far have been awarded throughout Australia. Amongst these include: the Sydney Harbour Bridge, the Parkes Radio Telescope and the Snowy Mountains Scheme. The latest was unveiled last weekend, being for **Broken Hill Mines and Infrastructure**. This was jointly sponsored by the Line of Lode Association, and was a Centenary of Federation event combined with the opening of a new Visitors' Centre and a Miners' Memorial.
- For works of regional significance, there is the **Historic Engineering Marker**. So far, 63 of these have been awarded nation-wide.....the works and engineers we honour today make that 64.
- **Wollongong Harbour** joins such diverse works as: Parramatta Dam (one of the earliest masonry arch dams in the world), Locomotive 3801, the Bendigo Gas Works, the Furphy Water Cart (and that is the Furphy who is the origin

- of the saying), Smith's Stump Jump Plough, the Railway Bridges near Wagga, the BMC-Leyland Motor Vehicle Plant at Zetland (which was a world leader in its day) and the Sydney Tramway Museum which was plaqued three weeks ago on 31 March.

I trust this provides some background to today's ceremony.

Why Wollongong Harbour??

The harbour at Wollongong is one of the oldest in Australia, and one with a key location on the main shipping route. You have heard from our MC, **Brian Dooley**, of some of the history of the harbour itself, its initial construction and subsequent enlargement, the construction of coal loading staiths, the construction of the breakwater, the T-jetty, steam cranes and the lighthouse. You also received a page of information on the history of the Harbour with your invitation.

You have heard from **Phil Presser** about the social impact of the harbour, and from the **Lord Mayor, Councilor George Harrison**, about the worth today of the harbour to the City of Wollongong. You can see that most things have been covered.

As a result, I have been asked to tell you a little about the engineers who were involved with the harbour construction. You heard from our MC of the two engineers principally involved in the construction of the harbour, they being:

- George Barney, and
- Edward Moriarty

Let me tell you a little of these engineers....

**George Barney** lived from 1792-1862. On 11 December 1835, he arrived in Sydney with his family, following Governor Sir Richard Bourke's request for a qualified civil engineer to be sent to NSW. This would place George Barney, at 42 years old,

selected to perform the duties of both Commanding Engineer and Colonial Engineer. He had earlier served in the Peninsula War from 1810 at Gibraltar, and then later in the West Indies.

On his arrival in NSW in 1835, his first duties were the removal of obstacles to navigation in the Parramatta River, and the completion of the breakwater at Newcastle. Barney insisted on better standards from government contractors, and on his advice a government brickworks was established (at Brickfield). Barney designed Victoria Barracks (as the replacement for the George Street Barracks), and construction began under his supervision in 1841. In 1843, James Gordon took over the role of Commanding Royal Engineer, but Barney retained the post of Colonial Engineer until his departure for England in 1844.

He retired from the Army in 1846, aged 54, and sold his commission. He was then appointed by the Secretary of State for the Colonies to establish a convict colony in north Australia. On 1 January 1849, Barney was appointed Chief Commissioner of Crown Lands and subsequently replaced Sir Thomas Mitchell as Surveyor General. As Chief Commissioner of Crown Lands, he held a seat in the Legislative Council until its dissolution in February 1856. He retired in 1860 and died in April 1862, one month short of his seventieth birthday. He was buried at St Thomas' Cemetery, North Sydney.

Barney supervised directly, or indirectly, the construction of:

- The Holy Trinity Church (now known as the Garrison Church)
- Circular Quay
- Customs House
- Government House
- Darlinghurst Gaol
- **Importantly, the Wollongong Harbour** between 1837 and 1842
- The connection of Busby's Bore to the Lachlan Swamps and the water reticulation system from Hyde Park

- Gas supply
- Roads, bridges, and railways
- Fort Denison
- And the fortification of Dawes Point, Middle Head, South Head, Bradleys Head and Georges Head

For the work on Circular Quay, he introduced the new diving bell equipment – which was also employed for the Wollongong Harbour.

Barney was a man of outstanding ability and energy with a deep understanding of human physical needs, and must be regarded as one of Australia's greatest pioneer engineers. In 1979, the then NSW Minister for Planning & Environment, the Hon Paul Lander, unveiled a stone memorial to him. This is adjacent to Cadman's Cottage in the Rocks, the stone having come from Victoria Barracks.

**Edward Moriarty** was Engineer-in-Chief, Harbours and Rivers, from 1858 to 1888. He was born in 1824 in County Kerry, and after studying at Trinity College, Dublin, he was elected to the UK Institution of Civil Engineers in 1865. While serving his indentures, he worked on the design of steam ships of the highest class. You will see later, the relevance of this experience.

In 1848, Moriarty came to Sydney, where his family had settled 5 years earlier. His father was Port Master in NSW and Harbour Master in Sydney, and his brother was a clerk in the Lands Department – where Moriarty commenced as a surveyor. Four years later, he established an engineering practice, which included the opening and development of coal mines in Wollongong.

However, the Moriarty families ties with marine matters, was responsible for is next Government position – that of Engineer/Surveyor to the Steam Navigation Board. Steam

powered vessels were in their infancy, and several accidents and disasters convinced the Government of the necessity for an efficient inspection system. In the early 1850's, the port facilities at Newcastle were not adequate to service the increasing volume of coastal and overseas shipping. Moriarty was appointed to the new position of "Superintendent of Improvements to the Navigation of the Hunter River". Not surprisingly, Moriarty shortened this to "Engineer to the Newcastle Harbour Works" – [pause] *what can I say, he must have started to show traits of an Australian!!!*

Representative Government had been granted to NSW in 1855, and the first departments of the new government were created. Moriarty was the obvious choice to lead the Harbour and Rivers Navigation Branch within the Department of Lands and Public Works. He was appointed Engineer-in-Chief in 1858 (on the day before his 34<sup>th</sup> birthday) and remained in that position for 30 years until his retirement in 1888.

Four areas deserve special mention, amongst the wide ranging responsibilities of the Harbours and Rivers Branch:

- Dredging – by 1888, Moriarty had 31 dredges, 15 tugs, 6 steam launches and other plant operating in all the harbours and coastal rivers of NSW – he started with 2 dredges in Sydney Harbour.
- Moriarty's wall – which was the breakwater to stabilise the mouth of the Clarence River
- Trial Bay Prison, and Breakwater, where ships could shelter in rough weather, and
- The Upper Nepean Scheme.

The Upper Nepean Scheme was Moriarty's greatest work. He was involved from 1869. The scheme augmented Sydney's water supply, and involved:

- A weir across the Upper Nepean River just below the junction of the Avon and Cordeaux Rivers at Pheasants Nest, with a diversion tunnel to connect to the Cataract River

- A similar weir on the Cataract River at Broughtons Pass, which diverted waters into a conduit 58 kms long
- Construction of the 7,400 ML Prospect Reservoir
- A 8km canal from Prospect to Pipehead at Guildford
- A 8km long, 1.8m diameter wrought iron pipeline from Pipehead to a 360ML reservoir at Potts Hill, together with connecting 1.2m diameter pipelines to Crown Street, Petersham, Newtown, Woollahra and Waverley.

The total length of the completed works was 102kms with a cost of £2.1M.

In amongst these four tasks, he was responsible for the Belmore Basin within Wollongong Harbour between 1861 and 1868, and the breakwater construction from 1867 to 1869. In 1870, Moriarty arrived in Wollongong on the Government steamer “Thetis” to select the site of the lighthouse. The breakwater lighthouse tower, constructed of half inch boilerplate, was completed in 1872.

Moriarty was one of eminent engineers in the history of NSW. He retired in 1888 at the age of 63, because of ill-health, said to have been caused by the pressures of the Upper Nepean Scheme. He died in 1896.

I trust these snippets provide with some background to the engineering “fathers” of Wollongong Harbour. It comes with good credentials.

I’d like to now refer to the text of the plaque of **this** Historic Engineering Marker, which reads .....

[..... read text of plaque .....]

It is now my pleasant task to ask the Lord Mayor to join me in unveiling this **Historic Engineering Marker** within the **Australian Historic Engineering Plaquing Programme**.

## Media Release

28<sup>th</sup> April 2001

### Heritage Week

## **Ceremony to Relaunch the 'White Towers' a book about Illawarra Lighthouses and to Unveil an Historic Engineering Marker.**

The Member for Keira, Mr David Campbell and the Lord Mayor of Wollongong, Clr George Harrison, in association with Mr Andrew Leventhal, President of the Sydney Division of the Institution of Engineers Australia, Mr Phil Presser, President of the Illawarra Historical Society and Mr Brian Dooley, Regional Manager of the Department of Land and Water Conservation will participate in a ceremony to relaunch a book on Illawarra Lighthouses called 'White Towers' and to present Wollongong Harbour with a Historic Engineering Marker on Saturday the 28<sup>th</sup> April 2001 at 1:00pm.

Mr Campbell said, "The breakwater lighthouse and this wonderful harbour are some of the most enduring symbols of the great heritage of this region.

"For the harbour to be awarded a Historic Engineering Marker is a significant event. It is an indication of the high regard in which the engineering profession of this state holds the original construction work.

"The lighthouses of the Illawarra are further fine examples of engineering works from our colonial past. These lighthouses are still highly regarded even though their importance has declined with the advent of satellite technology.

Lord Mayor of Wollongong, Clr Harrison said, "The success of tourism in a region is tied to the image that is conveyed to the world. As is clearly evident here, Wollongong has a bright future and the image of the city is continually being enhanced by the works of State government, council, local businesses and the community itself.

"There is hardly a visitor to this area that does not take a picture of this beautiful area. The breakwater lighthouse has long been an icon of the City. It is wonderful to see the whole harbour recognised by the Institution of Engineers as a very special place" said Clr Harrison.

Mr Leventhal said that, "It is with great pleasure that the Institution of Engineers (Sydney Division) decided to unveil an Historic Engineering Marker for Wollongong Harbour. The harbour is a remarkable example of the early harbours of the colony. The straight masonry walls of the harbour are reminiscent of small English harbours and represent the first stage of harbour engineering in Australia.

"These markers are only presented to achievements that are significant in the development of engineering in Australia. Other places to receive such a marker include the Snowy Mountain Scheme, King's Bridge in Launceston and Fremantle Harbour" explained Mr Leventhal.

Mr Presser said "The relaunch of A. P. Fleming's 'White Towers' book on the Illawarra Lighthouses brings up to date a well researched part of Wollongong's history. With the recent restoration of the Breakwater Lighthouse at Wollongong Harbour there has been an increase in interest in the history of the lighthouses of the Illawarra region from Cape Bailey to Crookhaven Heads. This book updated by Carol Herben and others will add to the knowledge of this particular piece of our heritage."

Mr Dooley said "The Department of Land and Water Conservation, as the manager of Crown Lands, has some of the most significant historical structures in the State. The Department recently had many of the lighthouse structures transferred to it from the Commonwealth Government.

"The harbour has had a long and interesting history, considering the many types of vessels that have entered and left port over the last 180 years and it is fitting that these special achievements of our past are recognised and managed for the enjoyment and appreciation of future generations" he said.

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For more information on the ceremony or works contact: Brian Dooley Regional Manager Sydney South Coast Region of the Department of Land and Water Conservation on 0416 288 022.



View of Wollongong Harbour looking east (28<sup>th</sup> April 2001)



View of Wollongong Harbour 28<sup>th</sup> April 2001 looking southeast.



The Old Court House adjacent to the Harbour, the venue for the Plaquing Ceremony

Belmore Basin undergoing enlargement in the mid 1880's. Coffin dams held back the sea to allow excavation and deepening of the basin.

WOLLONGONG HARBOUR  
HISTORY WALK

No. 2

## HARD LABOUR

The original inner harbour or basin was constructed between 1837-1844 by a gang of 300 convicts. In 1841 The Sydney Morning Herald commented that "the excavation of the basin through solid and intensely hard rock was most laborious, nor was the damming against such a force and constant pressure of water an easy matter." Despite these efforts the Basin soon proved inadequate to meet Wollongong's increasing sea trade.

In 1859 plans were drawn up for harbour enlargement yet during progress of the works it became apparent that these would also soon prove inadequate.

After taking seven years to construct, at a cost of £44,892, the new basin was opened in 1868 by the Countess of Belmore. Improvements to the basin included deeper anchorages, longer wharves and several overhead coal loading platforms built on the high wall adjacent to the basin. Up to 15 large sail or steam ships could now berth in the Basin.

One of several signs showing items of historical interest around the harbour



Mr Ben Meek, President of the local National Trust of NSW giving his welcome to guests to the Old Court House (a National Trust building)



Mr Brian Dooley, Regional Manager, Department of Land and Water Conservation welcoming guests to the afternoons ceremonies



The 'White Towers' book is officially launched (28<sup>th</sup> April 2001)



Part of the audience listening to a speech and below the Lord Mayor accepting the plaque from the Institution of Engineers.

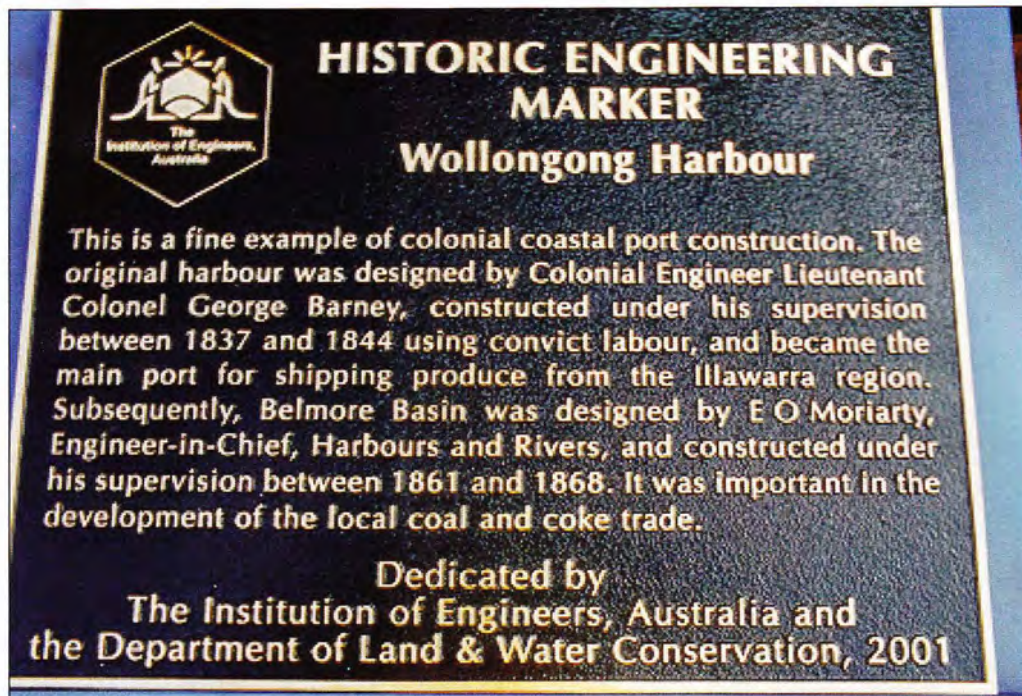




The Lord Mayor Clr Harrison and IEAus President Mr Leventhal with the Historical Engineering Marker



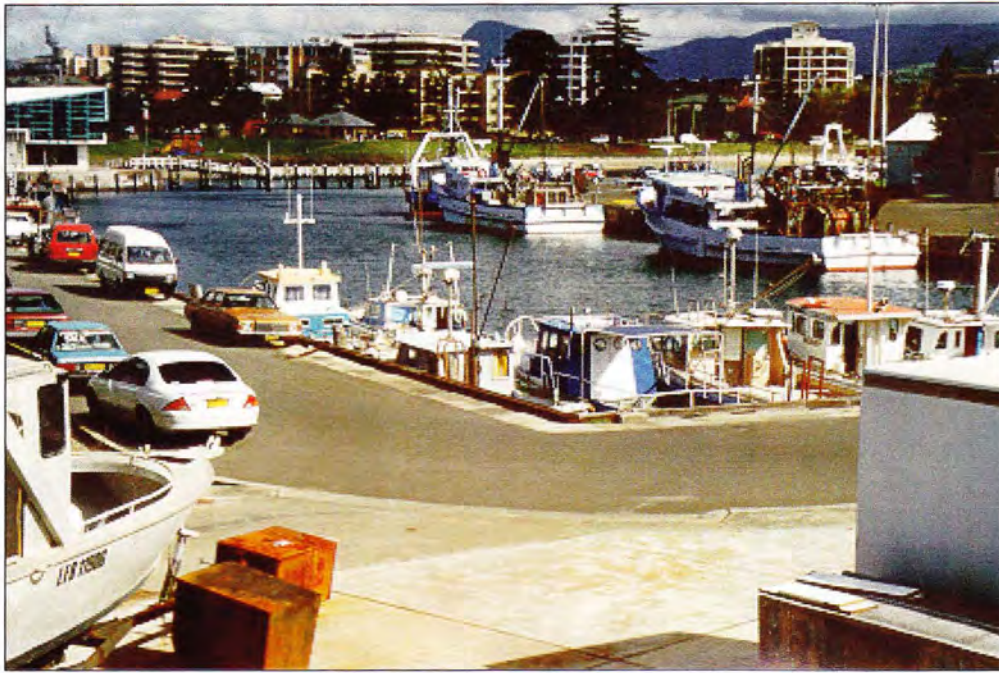
Mr Dooley, Regional Manager of DLWC thanking the audience for their attendance



The Historic Engineering Marker presented to Wollongong Harbour, 28<sup>th</sup> April 2001



The restored Old Wollongong Lighthouse (designed by E Moriarty) from the Old Court House.



Some of the fishing fleet that use Belmore Basin at Wollongong Harbour.



The Historic Engineering Marker in its position near the Co-operative building